Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-16. (Cancelled)

17. (New) a solid support comprising:

a. A substrate;

b. An electrostatic layer comprising a positively charged compound on the substrate; and

c. A chemically modifying layer on the electrostatic layer making it possible to introduce a functional group capable of covalently binding to a nucleic acid molecule.

18. (New) The solid support according to claim 17, wherein the chemically modifying layer contains a carboxyl group.

19. (New) The solid support according to claim 17, wherein the electrostatic layer includes an amino group-containing compound that does not covalently bond to the substrate.

20. (New) The solid support according to claim 17. wherein the electrostatic layer includes an amino group-containing compound by covalently binding to the substrate,

and the compound containing an amino group has an amino group at the terminus to which the substrate does not bind.

21. (New) The solid support according to claim 19, wherein the amino group-containing compound is polyarylamine.

22. (New) The solid support according to claim 17, wherein the thermal conductivity of the solid support is 0.1 W/cm.K or higher.

23. (New) A method for producing a solid support comprising:

a. providing an electrostatic layer having a positively charged compound by depositing a compound having an unsubstituted or monosubstituted amino group and a carbon compound on the substrate;

b. providing a chemically modifying layer on the electrostatic layer by introducing a functional group capable of covalently binding to a nucleic acid molecule.

24. (New) A method for producing a solid support comprising:

a. providing an electrostatic layer having a positively charged compound by dipping a substrate into a compound having an unsubstituted or monosubstituted amino group and a carbon compound;

b. providing a chemically modifying layer on the electrostatic layer by introducing a functional group capable of covalently binding to a nucleic acid molecule.

25. (New) A method for immobilizing a primer on a solid support according to claim 17, comprising hybridizing a nucleic acid molecule to the primer, thereby extending a nucleic acid molecule complementary to the nucleic acid molecule.

26. (New) A method for detecting a nucleic acid molecule, comprising:

a. immobilizing a primer on a solid support according to claim 17;

b. hybridizing a nucleic acid molecule to the primer;

c. extending a nucleic acid molecule complementary to the nucleic acid molecule to the primer;

d. extending a nucleic acid molecule complementary to the nucleic acid molecule in the presence of a labeled nucleic acid; and

e. reading a signal derived from the labeled nucleic acid incorporated into the complementary nucleic acid molecule.

27. (New) A method for amplifying a nucleic acid molecule comprising:

a. immobilizing a primer on a solid support according to claim 17;

b. hybridizing a nucleic acid molecule to the primer; and

c. subjecting the nucleic acid-primer to PCR reaction.

28. (New) A method for amplifying DNA comprising:

a. immobilizing a primer on a solid support according to claim 17;

b. hybridizing DNA to the primer; and

c. reacting the primer-DNA with a strand-displacing DNA polymerase.

30. (New) The method according to claim 26, further comprising amplifying the nucleic acid molecule after hybridizing a nucleic acid molecule to the primer.